

1 19. A system for generalizing a set of atomics and/or groups in a hierarchical document
2 structure, the system comprising:

3 means for identifying an anchor node, the anchor node being a context node of a template for
4 a particular node of content;

5 means for identifying an anchor node parent with sibling case where particular nodes of
6 content share the same anchor node and the path expressions for each particular node of content are
7 the same as the anchor node;

8 means for determining the anchors if the anchor node parent with sibling case is identified;

9 means for combining the location expressions of the identified nodes of content into a single
10 location expression for a generalized anchor node;

11 means for determining if the generalized anchor node is a sibling; and

12 means for generating a generalized expression corresponding to the generalized anchor node
13 that locates the content in the particular nodes of content identified.

1 20. The system of Claim 19 further comprising means for reanchoring the particular
2 nodes of content to a reanchor node if the generalized anchor node is a sibling node and means for
3 determining if the reanchor node is tangled such that the location expression to a piece of content
4 matches more than one piece of content.

1 21. The system of Claim 19 further comprising means for identifying the lowest node in
2 the hierarchical document structure that has not been generalized and means for generalizing the
3 lowest node before generalizing the nodes that are higher in the hierarchical document structure.

1 22. The system of Claim 19, wherein the location expression combining means further
2 comprises means for identifying a location expression for each particular node of content, means for
3 determining if there are other nodes of content and means for generating a replacement anchor node
4 if there are no other nodes of content.

1 23. The system of Claim 22, wherein the location expression combining means further
2 comprises means for determining if the location expression for the other nodes of content have been
3 generalized, means for generalizing the location expressions of the other nodes of content if they
4 have not been previously generalized and means for identifying the previously generalized location
5 expressions.

1 24. The system of Claim 23, wherein the location expression combining means further
2 comprises means for determining if the code associated with the location expression are consistent
3 with each other, means for generalizing each element of a location expression if the code is not
4 consistent and means for generalizing the common elements in the path if the code is consistent.

1 25. The system of Claim 20, wherein the means for determining a tangled node further
2 comprises means for determining the anchor nodes in the hierarchical document structure and means
3 for generating replacement nodes for location expressions having the same number of elements if
4 there are no more anchor nodes.

1 26. The system of Claim 25, wherein the means for determining a tangled node further
2 comprises means for determining the number of elements in each location expression and means for
3 indexing each location expression according to location, anchor number and element number.

1 27. A method for generalizing a set of atomics and/or groups in a hierarchical document
2 structure, the method comprising:

3 identifying an anchor node, the anchor node being a context node of a template for a
4 particular node of content;

5 identifying an anchor node parent with sibling case where particular nodes of content share
6 the same anchor node and the path expressions for each particular node of content are the same as
7 the anchor node;

8 determining the anchors if the anchor node parent with sibling case is identified;

9 combining the location expressions of the identified nodes of content into a single location
10 expression for a generalized anchor node;

11 determining if the generalized anchor node is a sibling; and

12 generating a generalized expression corresponding to the generalized anchor node that locates
13 the content in the particular nodes of content identified.

1 28. The method of Claim 27 further comprising reanchoring the particular nodes of
2 content to a reanchor node if the generalized anchor node is a sibling node and determining if the
3 reanchor node is tangled such that the location expression to a piece of content matches more than
4 one piece of content.

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1 29. The method of Claim 27 further comprising identifying the lowest node in the
2 hierarchical document structure that has not been generalized and generalizing the lowest node
3 before generalizing the nodes that are higher in the hierarchical document structure.

1 30. The method of Claim 27, wherein the location expression combining further
2 comprises identifying a location expression for each particular node of content, determining if there
3 are other nodes of content and generating a replacement anchor node if there are no other nodes of
4 content.

1 31. The method of Claim 30, wherein the location expression combining further
2 comprises determining if the location expression for the other nodes of content have been
3 generalized, generalizing the location expressions of the other nodes of content if they have not been
4 previously generalized and identifying the previously generalized location expressions.

1 32. The method of Claim 31, wherein the location expression combining further
2 comprises determining if the code associated with the location expression are consistent with each
3 other, generalizing each element of a location expression if the code is not consistent and
4 generalizing the common elements in the path if the code is consistent.

1 33. The method of Claim 28, wherein determining a tangled node further comprises
2 determining the anchor nodes in the hierarchical document structure and generating replacement
3 nodes for location expressions having the same number of elements if there are no more anchor
4 nodes.

1 34. The method of Claim 33, wherein the determining a tangled node further comprises
2 determining the number of elements in each location expression and indexing each location
3 expression according to location, anchor number and element number.

1 35. A system for generalizing a set of atomics and/or groups in a hierarchical document
2 structure, the system comprising:

3 means for identifying an anchor node, the anchor node being a context XHTML node of the
4 XSL template for a particular RML node;

5 means for identifying an anchor node parent with sibling delimiters where, each item shares
6 the same parent;

7 means for identifying an anchor node sibling where, each individual area of generalized
8 structure is not capable of being contained underneath its own unique ancestor node;